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THE SMALLER TEIID LIZARDS (*GYMNOPHTHALMUS* AND *BACHIA*) OF THE SOUTHEASTERN CARIBBEAN

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The recent herpetological and ornithological collecting led by Albert Schwartz in the Lesser Antilles has resulted in the acquisition of enough new material of the genera *Gymnophthalmus* and *Bachia* (formerly *Scolecosaurus*; see below) that an attempt can be made at clarifying their respective statuses in this region. I was fortunate in being able to participate in this collecting and in addition in being able to collect on Tobago and Trinidad in a brief search for pertinent comparative material.

I wish to express my appreciation to Dr. Schwartz for his support of this work and the use of his collections, here denoted as the Albert Schwartz Field Series (ASFS), and to the following persons for loan of specimens in their care: Mr. Charles M. Bogert, American Museum of Natural History (AMNH); Miss A. G. C. Grandison, British Museum (Natural History) (BM); Dr. William E. Duellman, University of Kansas (KU); Dr. Ernest E. Williams, Museum of Comparative Zoology, Harvard (MCZ); Dr. Charles F. Walker, Museum of Zoology, University of Michigan (UMMZ); Dr. Doris M. Cochran, United States National Museum (USNM); Père R. Pinchon, Séminaire College, Fort-de-France, Martinique (SC, specimens unnumbered); and Mr. Dennis R. Paulson (DRP). Specimens from my own private collection have been designated RT, and specimens from my collecting on Trinidad and Tobago by T. In addition, Mr. Paulson and Dr. Williams helped me greatly in obtaining necessary literature, for which they have my appreciation. I also wish to thank Mr. Ronald F. Klinikowski for making the illustrations in this paper.

GYMNOPHTHALMUS

Gymnophthalmus pleei Bocourt is a rather distinct species inhabiting the islands of Martinique and St. Lucia. *Gymnophthalmus luetkeni* was described by Bocourt in the same paper with *pleei* (1881). It has recently been considered to be in the synonymy of *G. pleei,* but new material from both islands shows that the St. Lucia lizards are subspecifically distinct and must therefore be known as *Gymnophthalmus pleei luetkeni.*

Some authors have assumed *Gymnophthalmus pleei* to be either extinct or quite rare on both islands due to depredations of the mongoose. On St. Lucia these lizards are abundant and widespread, though not easy to capture in many situations in which they occur; we obtained 25 during recent collecting. On Martinique they were found to be locally abundant on the Caravelle Peninsula, where more than 40 were captured. On the rest of Martinique they are apparently not so abundant as on St. Lucia and only one was seen by us at Ste.-Anne. A few have been collected in recent years from other scattered localities.

Of this bulk of Martinique specimens from the Caravelle Peninsula slightly more than 75 percent differ in number of midbody scale rows (19) from the eight available mainland specimens examined which all possess 17 scale rows. It may be, therefore, that enough fresh material from mainland Martinique would show the Caravelle lizards to be subspecifically distinct on the basis of other characters such as coloration. The patterns of the Caravelle specimens agree favorably with other Martinique specimens, so it is felt that on this point the St. Lucia specimens may be safely contrasted with the Martinique material as a whole.

In *G. p. luetkeni* the dorsal ground color is metallic brown in life and is confined to a middorsal zone five scales in width on the trunk. A golden yellow canthal stripe proceeds caudad over each eye and onto the neck and body occupying the parts of two scale rows medial to the line of juncture of the middorsal zone with the lateral coloration. The yellow stripes widen slightly as they proceed posteriorly and generally fade out a short distance beyond the level of the insertion of the forearm, though they may continue faintly to mid-trunk or slightly beyond. A dark line borders each stripe medially. The sides are dark gray-brown and possess a narrow dark border at the juncture with the dorsal zone and dorsolateral light stripe. The venter varies from black to metallic greenish or bronzy. Many specimens have a scaly pattern to the venter caused by a concentration of dark pigment at the basal region of each scale. Variation in intensity of ventral pigmentation is caused by variation in the extent of this basal area of each scale. The ground color of the tail may be strikingly lighter than that of the body

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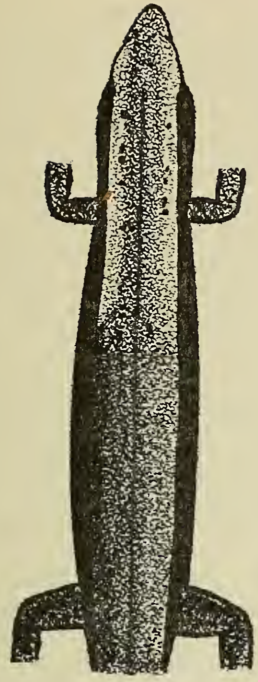

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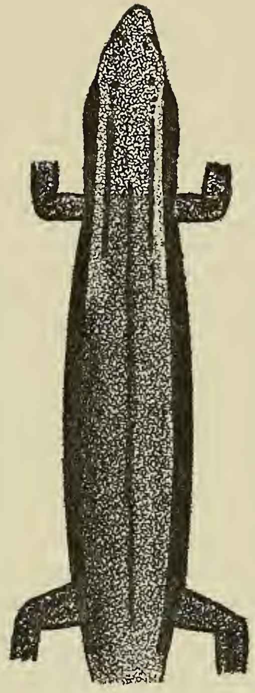

Fig. 1. *Gymnophthalmus p. pleei* (MCZ 69445).

Fig. 2. *Gymnophthalmus p. luetkeni* (ASFS X6645).

(possibly due to incomplete shedding) or of the same shade; the pattern consists of numerous, small, transverse, wing-like markings (one to each verticil) which are light laterally and dark centrally. There is a yellow post-auricular stripe which extends along the lower sides of the neck usually to just above the insertion of the forearm. The lower sides of the trunk may be invaded by light due to the presence of light-edged scales similar to those of the venter. In some specimens the post-auricular stripe sends a branch onto the forearm, beyond the forearm (or both) and onto the lower flanks, but it is generally lost in the striae which may be formed by the light-edged lateral scales.

Dorsal scales from nape to base of tail vary from 30 to 34 in 22 specimens; ventral scales from pectoral plates to anal scales vary from 23 to 28 in 21 specimens. Of 34 specimens, 32 have 17 scale rows at midbody, one has 19 and one 16. Parker (1933) recorded a specimen from St. Lucia having a midbody scale count of 15.

In coloration a comparison of St. Lucia specimens can only be made with Martinique specimens from the Caravelle Peninsula, as there are no color notes from life for non-Caravelle specimens, and most of them are old, faded and badly preserved. The middorsal zone of the Caravelle specimens is brown, becoming darker medially, a condition not nearly so pronounced in St. Lucia specimens. The sides are dark brown; the hind limb is reddish brown and in obvious contrast to the body color, which is not the case with *luetkeni*. The ventral coloration of Caravelle specimens varies from gray to bronzy. Overall, *G. p. luetkeni* is a darker colored lizard; the post-auricular neck stripe is generally distinct and in contrast with the darker ground color, whereas in *pleei* the lower neck area is apt to be much invaded by light ventral coloration. The same difference applies to the lower sides, those of *pleei* being in general lighter. The chin and gular region is also lighter and more often completely unmarked in *pleei*.

With respect to pattern the most salient and constant difference between *pleei* and *luetkeni* is the dark medial border to the light dorsolateral stripes. In the former these are, in the majority of specimens, irregular or discontinuous and are frequently separated from the stripe itself by a strip of ground color (Fig. 1). In the latter the light stripe is typically narrower and is followed closely by a continuous, dark medial border (Fig. 2).

As previously mentioned, better than 75 percent of Caravelle *pleei* are 19-row lizards while the remaining percentage plus the specimens from Martinique proper are 17-row lizards, as is also the case with *luetkeni*. One specimen (MCZ 6044) from Fort-de-France possesses 15 (or 16) rows at midbody. Of two specimens (MCZ 69445, 69446) from Ilet Chancel, just to the south of the Caravelle, one has 19 and one 17 scale rows. Ventral scales (29–35 in 42 specimens) and dorsal scales (24–31 in 41 specimens) are not significantly different from those of *luetkeni*. Femoral pores are 7/7 (5), 8/7 (2), 8/8 (2), or 6/7 (1); St. Lucia specimens were 7/7 or 8/8.

A single specimen of *Gymnophthalmus* was collected on the southernmost of the Maria Islands which lie a short distance to the east of the southern end of St. Lucia. This specimen differs sufficiently from other *G. pleei* to warrant recognition of a separate subspecies.

Gymnophthalmus pleei nesydrion, new subspecies

Diagnosis: A subspecies of *Gymnophthalmus pleei* characterized by reduced body keeling and chromatic differences.

Holotype: MCZ 77151, an adult female collected on the southernmost of the two Maria Islands, Vieux Fort Quarter, St. Lucia, 6 April 1963 by Richard Thomas.

Range: Known positively only from the type-locality but possibly occurring on the adjacent mainland of St. Lucia.

Description of holotype: Snout–vent length 41 mm. Four supralabials to posterior border of eye. Thirty-two middorsal scales from nape (first scale behind parietal) to base of tail; 27 ventrals from pectoral plates to anal shield; 17 scale rows around midbody. Lateral and dorsal portion of tail strongly keeled with keels becoming fainter ventrally and disappearing on large midventral row. Keeling extending faintly onto five most dorsal rows of posterior trunk scales but fading out very quickly, faint keels being evident for about six scales anterior to the groin on either side and for a few more on the middorsal row. Coloration: The pattern is generally similar to that of *luetkeni.* The dorsolateral light stripe, though faint on the canthus, extends prominently from the last supraocular along the neck and fades posterior to the level of the forearms; it is bordered medially by a dark line which follows it closely. The post-auricular stripe is prominent and extends to the insertion of the forearm and onto the anterodorsal portion of the extended arm. A faint flank stripe is evident in the preserved specimen. The venter has the scaly appearance due to concentration of dark pigment at the center of scales. Color notes from life state: "Dorsal ground color rich copper, hindlimb reddish, not prominently contrasting; sides reddish brown, not dark brown or black; upper line golden, outlined medially by dark brown, lower line golden, extending far back on sides; ventral ground color opalescent, chin a bit paler."

Comparisons: Examination of 78 specimens of *G. pleei* from Martinique and St. Lucia failed, with the exception of five specimens, to turn up any with the body keeling so reduced as in the type of *nesydrion.* The five exceptions are from a series of six collected by G. R. Proctor at Vieux Fort, St. Lucia, which is the portion of the main island adjacent to the Maria Islands. The possibility therefore exists that *nesydrion* occurs on the adjacent mainland or that its influence is felt there. The presence of a rather well-keeled specimen in this series leads to the latter assumption, that the Vieux Fort region supports intermediate examples. Unfortunately, due to preservation and fading, the specimens no longer bear their true colors and cannot be compared in this respect. *G. p. nesydrion* differs from *pleei* in pattern much the same as does *luetkeni.* In coloration its rich copper colored dorsum differs from either of the browns of *pleei* and *luetkeni*; likewise its reddish brown sides differ from the dark brown or gray-brown of the other two races.

It is tempting to hypothesize a close relationship between *Gymnophthalmus pleei* and *Gymnophthalmus lineatus* from Curaçao. The following points may be noted in support:

1. The pattern of Curaçao *lineatus* is merely an intensification of the *pleei* pattern, having all of the main pattern elements mentioned for *pleei.*

2. The keeling of the tail in Curaçao *lineatus* is greater than in *speciosus*; it commonly occupies the distal ¾ of the tail and is therefore a stage less developed than that of *pleei* in that it does not extend onto the body.

3. The preantebrachials, large in *speciosus* and apparently in mainland *lineatus*, are small in Curaçao *lineatus* and smaller yet in *pleei*.

4. Curaçao *lineatus* (and mainland *lineatus*) is closer to *pleei* in having 15 scale rows around midbody than in *speciosus* which typically has 13.

The precise status of mainland *lineatus* is difficult to determine at this point. Of two specimens which I have seen which were previously identified as *lineatus*, one (MCZ 22157 from Valencia, Venezuela) does indeed have a faint, narrow lower flank line; it also has 15 scale rows at midbody; however, it has enlarged preantebrachials as does *speciosus*. Another specimen (MCZ 25985 from Colombia) also identified as *lineatus* shows, probably due to its rather advanced stage of preservation, only a very slight suggestion of a lower flank stripe. It does, however, also have enlarged preantebrachials and 15 scale rows. This latter specimen agrees in a peculiarity of its color pattern (immaculate venter with dorsal coloration ending abruptly along a ventrolateral line) with a presumed *speciosus* (MCZ 16838 also from Colombia) which too has 15 scale rows and enlarged preantebrachials. The degree of tail keeling is also advanced on these two specimens. It has been suggested that the mainland *lineatus* might be a mere color variant or a race of *speciosus* (Parker 1935, *fide* Stuart 1939). This does not seem entirely likely, but the evidence is too slim at present for a decision. Whatever the eventual allocation of mainland *lineatus*, it is hard to by-pass the similarities between *pleei* and the Curaçao lizard. (Of interest is the fact that when Duméril and Bibron gave their summary of *G. lineatus* they gave its range as Brazil and Martinique and apparently based their description, at least in part, on a Martinique specimen, as they describe a specimen with five rows of keeled dorsal scales.)

Grant described *Gymnophthalmus underwoodi* from Barbados in 1958, and Underwood (1962) noted its existence on Trinidad. In the description of *underwoodi* Grant commented on the lack of femoral pores in the 14 specimens of the type-series and wondered if they might not all be females. Examination of over 40 additional specimens from Barbados plus 21 from Trinidad reveals a lack of femoral pores in any of the specimens. Further, examination of all but the smallest juveniles for gonads reveals that all of these specimens are indeed females. Barring a rather bizarre sex ratio or peculiarly cryptic habits on the part of the males it seems likely that *Gymnophthalmus underwoodi* can be added to the list of lizards (mostly teiids) having unisexual populations. Another fact in support of this is the low amount of variation in scale characters in these two populations as compared with other populations of *Gymnophthalmus*, cf. *pleei* and *luetkeni* (see tables).

Through a lapsus *G. underwoodi* is diagnosed as having from five to nine more belly scales than *speciosus* rather than fewer belly scales which is evident from the data presented. The large additional series from both Barbados and Trinidad roughly bear out this difference when

TABLE 1. Dorsal scales from parietal to base of tail in *Gymnophthalmus.*

	29	30	31	32	33	34	35	36	37	38	39	40
pleei	1	3	12	9	10	3	1	—	—	—	—	—
luetkeni	—	2	5	4	9	2	—	—	—	—	—	—
lineatus (Curaçao)	—	—	—	—	—	1	2	6	1	—	—	—
underwoodi (Barbados)	—	—	2	9	18	4	—	—	—	—	—	—
underwoodi (Trinidad)	—	—	3	10	4	1	—	—	—	—	—	—
"*speciosus*" (S. A.)	—	—	—	2	2	1	0	0	0	0	3	—
"*speciosus*" (C. A.)	—	—	—	—	1	6	4	4	2	3	2	1

TABLE 2. Ventral scales from pectoral plates to anal shield in *Gymnophthalmus.*

	21	22	23	24	25	26	27	28	29	30	31
pleei	—	—	—	3	11	3	13	7	1	0	1
luetkeni	—	—	1	1	7	8	1	—	—	—	—
lineatus (Curaçao)	—	1	0	1	0	5	2	0	1	—	—
underwoodi (Barbados)	5	17	11	—	—	—	—	—	—	—	—
underwoodi (Trinidad)	2	8	6	1	—	—	—	—	—	—	—
"*speciosus*" (S. A.)	—	—	2	2	1	0	2	—	—	—	—
"*speciosus*" (C. A.)	—	2	2	3	1	4	3	2	3	1	—

compared to Central American "*speciosus*" (*sensu lato.* For the sake of convenience in comparing Central and South American Gymnophthalmi with *underwoodi* I have lumped specimens of supposed *sumichrasti* and *birdi* with *speciosus*; no nomenclatorial change is intended, as this is not within the province of this paper) although there is some overlap (see tables). When the small and obviously heterogenous sample of "*speciosus*" from South America is compared with *underwoodi* it is seen that the specimens from Venezuela and British Guiana are closer than are those from Colombia (and one from Chile). Comparisons of the dorsal scale counts (parietal to base of tail) of *underwoodi* and "*speciosus*" shows much the same pattern with a greater difference with respect to Central American "*speciosus*" than observed for the ventral counts. The series of "*speciosus*" from South America includes one specimen from Georgetown, British Guiana (MCZ 61030, collected by Underwood and identified as *underwoodi*) which is possibly the basis for Underwood's (1962) surmise that the species may occur in British Guiana. This specimen and another similar one (USNM 145454) from the vicinity of Georgetown are darkened from preservation and have lost their original coloration, though they do bear a certain resemblance to similarly preserved *underwoodi*; their scale counts do not preclude the possibility of their being closely related or identical. For another specimen from Los Frailes Islands off Venezuela (MCZ 50146) and for USNM 72755 from San Juan de los Morros, Aragua, Venezuela (a male) practically the same can be said as for the last two, except that the state of preservation is worse. However, a specimen from San Tomé, Anzoáteguí Province, Venezuela, is not identical to *underwoodi* due to coloration differences (light tail and bolder pattern). This specimen is from a locality farther to the east (and therefore nearer to Trinidad) than is the rather indeterminate specimen from San Juan de los Morros.

From the foregoing it can be seen that *underwoodi* differs little if at all in morphological characters from some *Gymnophthalmus* of the adjacent mainland. However, we must await comparable series of fresh specimens from the mainland to determine its precise relationships. The presumed unisexuality of both island populations of *underwoodi* and the resultant lack of interbreeding potential with mainland lizards also argue for the retention of species status.

BACHIA

Vanzolini (1961b) discussed the supposed distinctions between *Scolecosaurus* and *Bachia*; he concluded that these were not consistent and that *Scolecosaurus* must therefore be considered a synonym of *Bachia*. Though I do not have a wide acquaintance with the various species of *Bachia* (old sense), it appears that Vanzolini is correct, and I follow his usage. A new species of *Bachia* from Brazil (Thomas, 1965) further confirms the lack of distinction between the genera.

The species and subspecies of *Bachia* which were formerly recognized in the genus *Scolecosaurus* are listed as follows:

Bachia cuvieri Fitzinger
Bachia pallidiceps Cope
Bachia alleni alleni Barbour
Bachia alleni parviceps Barbour
Bachia trinitatis Barbour

Barbour (1933) discussed the nomenclatorial history of *Bachia cuvieri*; from this discussion the following points may be noted:

1. The type-specimen of *cuvieri*, formerly in the Vienna Museum, is lost.
2. The type was of unknown provenance.
3. The first detailed description of *cuvieri* was given by Duméril and

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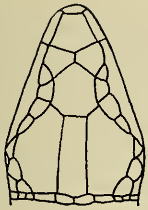

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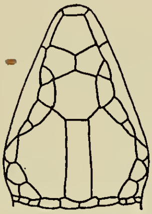

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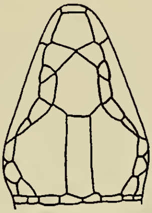

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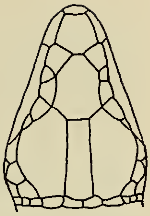

FIG. 3. *Bachia alleni alleni* (ASFS X7145 from Grenada) showing median prefrontal contact.

FIG. 4. *Bachia alleni alleni* (T152 from Tobago) showing median prefrontal contact.

FIG. 5. *Bachia alleni alleni*, provisional (specimen collected by Père R. Pinchon on Bequia Island), showing apical contact of prefrontals, a condition occurring in some *B. trinitatis*.

FIG. 6. *Bachia alleni trinitatis* (T114 from Trinidad) showing broad separation of prefrontals and consequent frontal-internasal contact.

Bibron (1839: 453), and this was a composite based on three specimens from the Paris Museum. No detailed description was given at the time of the naming of the species.

4. Barbour regarded *cuvieri* to be characterized by having the prefrontals in contact medially along a short suture (Figs. 3 and 4). He did not in any adequate way re-diagnose *alleni*, which was originally distinguished from *cuvieri* on the basis of Duméril and Bibron's description.

The two specimens in the British Museum and the Paris Museum which Barbour considered to be *cuvieri* have no adequate locality data other than "Brazil" or "West Indies."

The following conclusions are drawn from the foregoing:

1. There is no basis for associating the name *cuvieri* with any particular one of the four-toed *Bachia*.

2. If we follow Barbour in regarding *cuvieri* as a species with the prefrontals in contact and otherwise having characteristics common to those species formerly considered to be in the genus *Scolecosaurus* (*i.e.* quadrangular, non-imbricate ventral scales), then the name could possibly apply to:

a. *B. alleni* from Grenada

b. An unverified species from South America possessing these characteristics.

In the former case the conclusion of Burt and Burt (1931) that *alleni* is a synonym of *cuvieri* would be correct. As there is no present basis for deciding between these alternatives, I choose to retain the name *alleni* for the Grenada population and to hold the name *cuvieri* in abeyance until sufficient evidence is obtained to 1) either apply it to a population of lizards or 2) to recommend its rejection. If the type is indeed lost the latter course of action seems best. *Cuvieri* is not applied to any specimens in collections unless they possess the characteristics mentioned above and are definitely from South America (a situation which apparently does not exist). I have examined two specimens of supposed *cuvieri* from the British Museum (B. M. 53.2.4.63 and R. R. 1961.1861); these are both from "South America" and were obtained in the 1860's. Neither are distinguishable from *alleni.*

Should it be noted that in Barbour's (1914) description of *alleni* that there are mentioned some rather significant differences between *alleni* and the specimens Duméril and Bibron possessed, attention is brought to the fact that Barbour mistranslated in two instances. *B. alleni* was contrasted with the Duméril and Bibron description as having the fifth upper labial (of six) pentagonal in shape in contrast to seven upper labials of which the fifth is a scalene triangle. In actuality Duméril and Bibron stated that it is the third upper labial which resembles a scalene triangle; the fifth they considered to resemble roughly an isoceles triangle, which is true for *alleni,* though as more precisely stated by Barbour it is pentagonal. Moreover, Duméril and Bibron (1839: 455) stated that *cuvieri* has only five upper labials of which the last two are the smallest. This statement is probably an error, as none of the specimens examined by me have either as few as five upper labials, or have the last two the smallest.

Thirty-five specimens of *Bachia* from Grenada were examined, 36 from Trinidad, six from Tobago and three from the Grenadines. In counts of scales around midbody, dorsal scales from nape to hindlimb and ventral scales from pectorals to anal shield the ranges are almost identical for the three larger series, and the specimens from the Grenadines are within the range of the others. *B. alleni* and *trinitatis* were originally differentiated on the basis of broad prefrontal contact for the former (Figs. 3 and 4) and separated prefrontals for the latter (Fig. 6). Roux (1926) noted that two of 16 specimens from Trinidad had the prefrontals joined in a median suture. This condition occurs also in the present large series: five have prefrontal contact in a median suture and one has but apical contact of the prefrontals (Fig. 5). Nonetheless, it was observed that even in those specimens with the prefrontals joined medially, the contact was not so great as with the Grenada specimens. A result of the varying contact of the prefrontals is that the frontal is longer in those specimens with less contact (to the extreme of complete prefrontal separation in which the frontal is in contact with the internasal) and shorter in those specimens with greater contact. When this is expressed as a ratio of length of prefrontal suture/ frontal length, it is found that these series of Grenada and Trinidad *Bachia* are completely separable on this basis. (The measurements were taken with an optical micrometer at 20× magnification.) The longer prefrontal suture and consequent shorter frontal of the Grenada material yields a range of values from .09 to .24; the lack of prefrontal contact or apical contact (suture length value of zero) or short prefrontal contact and consequently longer frontals of the Trinidad material yielded values from 0 to .08. Interestingly, the Tobago *Bachia* are definitely closer to those from Grenada, yielding a range of values for this ratio of .17 to .25.

Another character that demonstrates some degree of divergence between the Trinidad and Grenada populations is the width of the band of imbricate scales across the back. The Grenada specimens have an imbricate band width at midbody that varies from seven to nine scales with 82 percent of the specimens having band widths of seven or eight. The Trinidad specimens have imbricate band widths of nine to 11 with 66 percent having widths of 10 to 11. Again the six Tobago specimens show affinity with the Grenada material, having imbricate band widths of seven and eight.

Vanzolini (1961a) gave a redescription of *Bachia trinitatis* based on a single paratype in the collection of the Departamento de Zoologia at São Paulo. In this paper and in the other (1961b) he regarded *trinitatis* as being the only one of those species formerly in the genus *Scolecosaurus* possessing the prefrontals not in contact and further regarded it (1961a) as being at the extreme range of variation for the genus (*Scolecosaurus*). This is strange, as one of the most salient characteristics of the specimens of *pallidiceps* (from Colombia and the Darién) examined by me is the widely separated prefrontals (more so than in *trinitatis*). This fact can be considered to support Vanzolini's (1961b) contention that *Scolecosaurus* is synonymous with *Bachia*, as it further breaks down the distinction of presence or absence of prefrontal contact.

Barbour (1933) and Brongersma (1946) mentioned the occurrence of *Bachia trinitatis* on the mainland, more specifically from the lower Orinoco and the banks of the Orinoco. Another specimen (MCZ 43880) from the Paria Peninsula of Venezuela is also assignable to *B. trinitatis*; in scale counts it and the counts for the specimen examined by Brongersma (1946) are within the range of *trinitatis*. As a further refinement of the ratio used above to differentiate *alleni* and *trinitatis*, the length of separation of the prefrontals (*i.e.* the length of the frontal-internasal suture) over the length of the frontal may be given a negative value, thus indicating the degree of separation of the prefrontals. A continuous scale from broadly connected prefrontals to widely separated prefrontals can thereby be set up. When this latter ratio is applied to the Paria Peninsula specimen a value of –.20 is obtained which is just below the lowest value obtained for the Trinidad specimens (–.19). This lends support to the possibility that Trinidad may prove to be an area of intermediacy between a mainland race with widely separated prefrontals and *alleni* with broadly connecting prefrontals.

All three specimens from the Grenadines have imbricate band widths of seven scales at midbody, which definitely allies them with Grenada. The type of *parviceps* (MCZ 32345) has a prefrontal suture/frontal length ratio of .14 which places it within the range of the Grenada material with which it is best considered synonymous. The two specimens from Bequia (AMNH 90516 and a specimen collected by Père R. Pinchon of Martinique) both have apical contact of the prefrontals (Fig. 5), a condition which was not found in Grenada specimens. The Bequia *Bachia* may well represent a distinct form from that island but considering variation of the characters in question in the larger series of *Bachia* from other localities, it is best to wait until more material comes to light.

The following West Indian forms of *Bachia* are recognized:

Bachia alleni alleni: Grenadines (Cannouan, Bequia), Grenada, Tobago.

Bachia alleni trinitatis: Trinidad and the adjacent South American mainland.

SPECIMENS EXAMINED

Gymnophthalmus pleei pleei: MARTINIQUE: Fort-de-France, MCZ 6044, SC (three specimens); St.-Pierre, MCZ 6045; Case-Pilote MCZ 69445; Ilet Chancel off Robert, MCZ 69446-47; Ste.-Anne, USNM 123837; Tivoli, USNM 121251; 3 km NE Tartane, Château Dubuc, ASFS 18762-66, X387-419, DRP 250-251, RT 344-48.

Gymnophthalmus pleei luetkeni: ST. LUCIA: UMMZ 55878, 61134. Castries Quarter: Castries, MCZ 6042-43, 58751-52, AMNH 38969; Vigie Beach, ASFS X6645-54, RT 362. Dauphin Quarter: Petite Anse River, ASFS X6675-76, X6742-47, DRP 2662. Anse la Raye Quarter: 0.6 mi. E Anse la Raye, ASFS X6670; Anse Galet, ASFS X6671; Anse Galet Estate, ASFS X6766; Venus Estate, ASFS X6771. Praslin Quarter: Praslin Estate, 300′, MCZ 69448-49. Vieux Fort Quarter: Vieux Fort, MCZ 58752-56.

Gymnophthalmus pleei nesydrion: ST. LUCIA: Vieux Fort Quarter: Maria Islands, southernmost of two, MCZ 77151.

Gymnophthalmus underwoodi: BARBADOS: USNM 30991-92. St. Michael Parish: Bridgetown (Queen's College), ASFS X6845. Christ Church Parish: Coverly, ASFS X6777-805, DRP 2663-64, RT 388-89. St. Peter Parish: Heywoods Beach, ASFS 6815-24. St. Lucy–St. Peter Parishes: Gay's Cove, MCZ 75021. TRINIDAD: St. George Co.: Tacarigua Ward: Imperial College of Tropical Agriculture, AMNH 72849; St. Augustine, MCZ 66942-52; St. Ann's Ward: Port-of-Spain, MCZ 61031-32; Santa Cruz Valley, 7.5 mi. N San Juan, T50-54. St. David Co.: Toco Ward, 2 mi. SE Toco, T219. (Probably Trinidad) St. Andrew Co.: Manzanilla Ward, Manzanilla Beach, MCZ 60982.

Gymnophthalmus lineatus: CURAÇAO: USNM 64170-71, 90906; Chincho, MCZ 69599-601; Tafelberg of St. Hyronimus UMMZ 57165, 57168; 1 km from Landhuis toward St. Christoffelberg UMMZ 57166-67; Landhuis Knip, UMMZ 57170; St. Christoffelberg, 1200′, UMMZ 57171.

Gymnophthalmus "speciosus": BRITISH GUIANA: Georgetown, MCZ 61030; 50 mi. above Georgetown up Abary River, USNM 145454. VENEZUELA: Islas Los Frailes, MCZ 50146; Anzoátegui Province, San Tomé, USNM 140249; Guarico Province, San Juan de los Morros, USNM 72755; Aragua Province, Valencia, MCZ 61030. COLOMBIA: Río Frío, MCZ 25985; Antioquia Province, Antioquia, AMNH 32770; Magdalena Province, Santa Marta Mts., Bolívar, MCZ 16838. CHILE: Coquimbo Province, El Tofo, AMNH 38816. PANAMA: Canal Zone: AMNH 83578; Ft. Randolph nr. Colón, MCZ 18913-14; Bruja Point, nr. Pacific end, MCZ 24393-95; Ancón, MCZ 32529; Rosseau, KU 61793-94; Camp Chagres, 120 m, KU 76173. Cocle, El Valle de Antón, AMNH 88314; Panamá Viejo, 5 m, KU 76171; South Slope Cerro de la Compana 740 m, KU 76172. COSTA RICA: Buenos Aires de Feirata, MCZ 38688. HONDURAS: Yequaré River Valley, 17 mi. SW of Tegucigalpa, MCZ 48688; Tegucigalpa, MCZ 49776-80, 49997; F. Morazan, EAP, El Zamorano, AMNH 85477. NICARAGUA: Polván, MCZ 5783 (3). MEXICO: Oaxaca: 20 mi. from Tehuantepec, MCZ 46462; Tehuantepec, Salazar, AMNH 66949; Tehuantepec, Quiengola, AMNH 66950.

Bachia alleni alleni: GRENADA: St. George Parish: St. George's, MCZ 7793 (3) (types), USNM 43218-9, AMNH 38968; Annandale Estate, USNM 79190; 0.20 mi. E Willis, 550′, ASFS X6852-53. St. Andrew Parish: Grand Etang, MCZ 9005-09. St. David Parish: 1 mi. SE Vincennes, 600′, ASFS 6847-48; Bailey Bacolet Stock Farm, ASFS X7144-55, X7360, DRP 2667-68; north shore of Westerhall Bay, ASFS X7158; 1 mi. N Vincennes, 1400′, ASFS X7175. St. Patrick Parish: 0.8 mi. S Sauteurs, ASFS X7196-99; Mt. Alexander, ASFS X6998. GRENADINES: Cannouan Island, MCZ 32345; Bequia Island, AMNH 90516, SC (one specimen). TOBAGO: 4 mi. NE Pembroke, T149-53; 4 mi. N of Mount St. George, T169.

Bachia alleni trinitatis: TRINIDAD: AMNH 1608, 38815. St. George Co.: St. Ann's Ward: Santa Cruz Valley, 7.5 mi. N San Juan, T49, T110-19; Port-of-Spain, UMMZ 55768; Tacarigua Ward: Caura Valley, MCZ 39689; Mt. Tucuche, MCZ 32521; Morne Bleu, AMNH 72852; Arima Ward, Arima Valley, AMNH 81486; Blanchisseuse Ward, Blanchisseuse, MCZ 55675; Diego Martin Ward, AMNH 64458 (3), 64522 (4). Caroni Co.: Montserrat Ward: Caparo, MCZ 8947 (type), 8950-52 (paratypes), USNM 120795. Victoria Co.: Pointe-a-Pierre Ward, Pointe-a-Pierre, MCZ 49062-63; Princestown-Moruga Road, USNM 107651. St. Andrew Co.: Manzanilla Bay, USNM 141583. Venezuela: Monagas Province, Paria Peninsula, MCZ 43880.

Bachia pallidiceps: COLOMBIA: Chocó, Atraco Region, Quesada River, AMNH 18230. PANAMÁ: Yaviza, Darién, MCZ 37750.

ADDENDUM

To the localities for *Gymnophthalmus underwoodi* may be added the Lesser Antillean island of St. Vincent. I have examined MCZ 79729-34 referable to this form, recently collected at Cane Garden, south of Kingstown, St. Vincent, by Mr. James D. Lazell, Jr. The specimens do not seem to differ from others of the species I have seen.

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